

REMARKS

Claims 1-4 and 7-9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kaido et al. (U.S. Patent No. 5,938,869) in view of at least one of Martin et al. (U.S. Patent No. 4,261,786) and Klose et al. (U.S. Patent No. 5,135,601). Claims 3, 4 and 9 have been cancelled, without prejudice, thereby rendering this rejection moot with respect to these claims. However, with respect to claims 1, 2, 7 and 8, Applicant respectfully traverses this rejection.

In response, Applicant amended independent claim 1 to clarify that application of adhesive to an outer surface of the tubular films by dipping the tubular films successively in an adhesive solution in a container, and respectfully traverse the rejection.

Claim 1 now clarifies that the tubular films are wound in bobbins. Claim 1 also calls for a step of unwinding the tubular films from their respective bobbins to apply an adhesive to an outer surface of the tubular films by dipping the tubular films successively in an adhesive solution in a container, and drying the applied adhesive that is adhered to the outer surface of the tubular films by use of a drying means. Claim 1 additionally calls for a step of winding in rolls respective tubular films each having adhesive layer on the outer surface, forming one type of rolled body corresponding to each nominal rim diameter of a tire, unwinding the tubular film from one type of the rolled body corresponding to a nominal rim diameter of a green tire when the green tire is built; cutting the unwound tubular film in accordance with tire width measurements so as to form a piece of the tubular film having a necessary width corresponding to a size of the green tire, and when the tire width measurements are changed, cutting the unwound tubular film by changing a cutting length to form a tire component; and feeding the tire component as the inner liner layer to the tire building machine.

machine. Applicant respectfully submits that neither the Kaido nor Martin or Klose references, taken alone or in combination, disclose or suggest these above-described steps of feeding the tire component.

When tubular films are utilized for inner liner layers, and the inner surface is formed on an adhesive layer, a problem occurs wherein the building drum and the inner liner layer are adhered to each other and therefore the inner liner layer has to be torn off from the building drum. Therefore, it is important to form the adhesive layer only on an outer surface of a tubular film. In the present invention, the tubular films rolled in bobbins are unwound to dip and pass the tubular films in the adhesive solution in a container successively to therefore form an adhesive layer only on the outer surface of each of the respective tubular films. (See Applicant's Specification, paragraphs [0032-0033]).

When the tubular films are dipped in an adhesive solution and air remains inside the tubular films, then it is hard to dip and pass the tubular films through the adhesive solution at a high rate of speed due to the effect of a large buoyancy. However, the present invention advantageously rolls the tubular films in bobbins before they are dipped in the adhesive solution. Therefore, any remaining air inside the tubular films is decreased and when the tubular films are dipped in an adhesive solution, there is hardly any buoyancy acting on the tubular films. Accordingly, it is possible to efficiently obtain tubular films having the adhesive layer on the outer surface and pass the tubular films at a high rate of speed through the adhesive solution. Applicant respectfully submits that none of the cited references, taken alone or in combination, disclose or suggest a method of forming an adhesive layer on the outer surface of the tubular films which become inner liner layers as efficient as

liner layers as efficient as the method of the present invention. Since none of the cited references, taken alone or in combination, disclose or suggest the steps of claim 1 noted above, withdrawal of the §103(a) rejection of claims 1-4 and 7-9 is respectfully requested.

Claim 5 stands rejected under §103(a) as being unpatentable over Kaido taken in view of at least one of Martin and Klose, and further in view of at least one of Hashimura et al. (U.S. Publication No. 2002/0033557) and Kaido et al. (U.S. Patent No. 6,136,123, hereinafter Kaido '123) and optionally further in view of JP 2002-103471 to Bridgestone. Since this claim is cancelled, the rejection is now moot. As this rejection applies to amended claim 1, Applicant respectfully submits that JP 2002-103471 to Bridgestone does not disclose or suggest the tubular film of the present invention.

The annular film disclosed in JP 2002-103471 is a supplemental member which is used for forming an unvulcanized inner liner member. (See paragraph [0018]). The material that is coated on the annular film is not an adhesive, but is instead a rubber composition which itself becomes an inner liner.

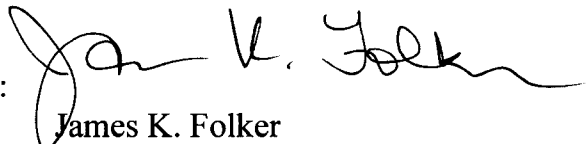
In contrast, the present invention has a tubular film that is itself the inner liner member. What is attached to the tubular film is an adhesive to adhere the tubular film to another tire component. Thus, Applicant respectfully submits that the tubular film of the present invention differs in function from the annular film disclosed in JP 2002-103471. For these additional reasons, Applicant respectfully submits that claim 1 is distinguished over JP 2002-103471.

For all of the foregoing reasons, Applicant submits that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

If a Petition under 37 C.F.R. §1.136(a) for an extension of time for response is required to make the attached response timely, it is hereby petitioned under 37 C.F.R. §1.136(a) for an extension of time for response in the above-identified application for the period required to make the attached response timely. The Commissioner is hereby authorized to charge any additional fees which may be required to this Application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 07-2069.

Respectfully submitted,

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